

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/666,497
Inventor(s) : Alexander Timothy Chenvainu et al.
Filed : September 19, 2003
Art Unit : 3727
Examiner : Laura Cole Guidotti
Docket No. : Z-3432
Confirmation No. : 9179
Customer No. : 27752
Title : Toothbrushes

APPEAL BRIEF

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

This Brief is filed pursuant to the appeal from the U.S. Patent and Trademark Office Final Rejection dated March 22, 2010 ("Final Rejection). A timely Notice of Appeal was filed on June 21, 2010.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences or judicial proceedings.

STATUS OF CLAIMS

Claims 35, 37-39, 41-46, and 48-53 are rejected.

Claims 1-34, 36, 40, and 47 are canceled.

Claims 35, 37-39, 41-46 and 48-53 are appealed.

A complete copy of the appealed claims is set forth in the Claims Appendix attached herein.

STATUS OF AMENDMENTS

No amendment was filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Unless otherwise indicated, the page and line numbers cited herein refer to the specification as it was originally filed.

Claim 35 is drawn to a power toothbrush (See *inter alia* page 4, lines 7-14, ref. no. 10, and Figure 1) comprising a handle (See *inter alia* page 2, lines 17-22); a neck (See *inter alia* page 4, line 7, ref. no. 14, and Figure 1) extending from the handle; a motor (See *inter alia* page 4, lines 10-14) within the handle, and extending from the neck, a head (See *inter alia* page 4, lines 15-19, ref. no. 12, and Figure 1) including a support member (See *inter alia* page 4, lines 15-30, ref. no. 16, and Figure 1), the support member including a lower portion constructed to be rotationally oscillated, relative to the neck, by the motor (See *inter alia* page 4, lines 7-14), and a top surface (See *inter alia* page 4, lines 15-19, ref. no. 17, and Figure 1) having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond (See *inter alia* page 2, lines 14-16), a major axis of the elongated shape being disposed generally parallel to a long axis of the handle (See *inter alia* page 4, lines 27-29), wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm² (See *inter alia* page 5, lines 1-2), a plurality of tufts of bristles (See *inter alia* page 4, lines 20-26, ref. no. 18, and Figure 1) extending from the support member, and a plurality of elastomeric fins (See *inter alia* page 6, lines 12-19, ref. no. 102, and Figures 3 and 3A) pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface (See *inter alia* page 6, lines 12-20, ref. no. 101, and Figures 3 and 3A).

Claim 43 is drawn to a head for a power toothbrush comprising a support member configured for releasable attachment to a power toothbrush (See *inter alia* page 4, lines 15-30, ref. no. 16, and Figure 1), the support member including a lower portion constructed to be rotationally oscillated, relative to a neck of the toothbrush (See *inter alia* page 4, lines 7-14), and a top surface (See *inter alia* page 4, lines 15-19, ref. no. 17, and Figure 1) having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond (See *inter alia* page 2, lines 14-16), wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm² (See *inter alia* page 5, lines 1-2), a plurality of tufts of bristles (See *inter alia* page 4, lines 20-26, ref. no. 18, and Figure 1) extending from the support member, and a plurality of elastomeric fins (See *inter alia* page 6, lines 12-19, ref. no. 102, and Figures 3 and 3A) pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface (See *inter alia* page 6, lines 12-20, ref. no. 101, and Figures 3 and 3A).

Claim 50 is drawn to a head for a power toothbrush comprising a support member configured for releasable attachment to a power toothbrush (See *inter alia* page 4, lines 15-30, ref. no. 16, and Figure 1), the support member including a lower portion constructed to be rotationally oscillated relative to a neck of the toothbrush (See *inter alia* page 4, lines 7-14), and a top surface (See *inter alia* page 4, lines 15-19, ref. no. 17, and Figure 1) having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond (See *inter alia* page 2, lines 14-16), wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm²(page 5, lines 1-2), a plurality of tufts of bristles (See *inter alia* page 4, lines 20-26, ref. no. 18, and Figure 1) extending from the support member, and a plurality of elastomeric fins (See *inter alia* page 6, lines 12-19, ref. no. 102, and Figures 3 and 3A) pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface comprising ribs (See *inter alia* page 6, lines 12-20, ref. no. 101, and Figures 3 and 3A),

wherein the tufts of bristles and elastomeric fins, in combination, have at least three different heights (See *inter alia* page 7, lines 1-3).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- I. Whether the rejection of claims 35, 37-39, 41-43, 45-46 and 48-49 as unpatentable under 35 U.S.C. §103(a) over McDougall, GB 2371217 (hereinafter “McDougall”) in view of Braun et al., WO 02/38004 (hereinafter “Braun”) and Bigler, et al., WO 94/03125 (hereinafter “Bigler”), in further view of U.S. Patent No. 6,021,538 to Kressner et al., (hereinafter “Kressner”) is erroneous.
- II. Whether the rejection of claims 37, 44 and 50-53 as unpatentable under 35 U.S.C. §103(a) over McDougall, Braun, Bigler, and Kressner, in view of U.S. Patent No. 4,373,541 to Nishioka (hereinafter “Nishioka”) is erroneous.

ARGUMENTS

- I. **The rejection of claims 35, 37-39, 41-43, 45-46 and 48-49 as unpatentable under 35 U.S.C. §103(a) over McDougall in view of Braun et al. and Bigler, in further view of Kressner et al. is erroneous.**

In order for the Office to show a *prima facie* case of obviousness, MPEP §2142 requires a clear articulation of the reasons why the claimed invention would have been obvious. In addition, the Office bears the burden of factually supporting any *prima facie* conclusion of obviousness. (See, e.g., *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967) and MPEP §2142)). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. (*KSR v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007)).

Finally, if the Office does not demonstrate *prima facie* unpatentability, then without more, the Applicant is entitled to the grant of the patent. (See, e.g., *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2D 1443 (Fed. Cir. 1992)).

In the Final Rejection, it was asserted that McDougall taught all of the elements recited in independent claims 35 and 43 except for:

- 1) fins pivotally mounted and extending from a support member; and
- 2) a top surface having an elongated shape or a specific surface area.

(See, the Final Rejection, page 3. In order to overcome the lack of disclosure of McDougall, the Office looked to Braun, Bigler and Kressner.

In order to make a proper *prima facie* case of obviousness, the scope and content of the prior art must first be determined. (See, e.g., *Graham v. John Deere Co.*, (383 U.S. 1, 148 USPQ 459 (1966)). Additionally, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. (See, e.g., *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). (See also, e.g., *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 448 (Fed. Cir. 1986) where the court stated “[i]t is impermissible within the framework of §103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.”). Finally, case law clearly indicates that it is improper to combine references where the references teach away from their combination. (See, e.g., *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)).

McDougall is directed to an electrically driven toothbrush having a generally circular brush or bristle holder 13 that carries “a number or bristles 19 interspaced with arcuate membranes 23,” as shown in Fig. 5 of McDougall, reproduced below. McDougall, Abstract & page 3, lines 23-24. McDougall states that “[e]ach membrane 23 is generally semi-circular in cross-section and partially surrounds a respective bristle

mounted adjacent the periphery of the brush holder.” McDougall, page 5, lines 24-27. McDougall states that due to the “configuration, the membranes are inherently unlikely to become clogged up with toothpaste or debris removed from the teeth.” McDougall, page 6, line 1-3.

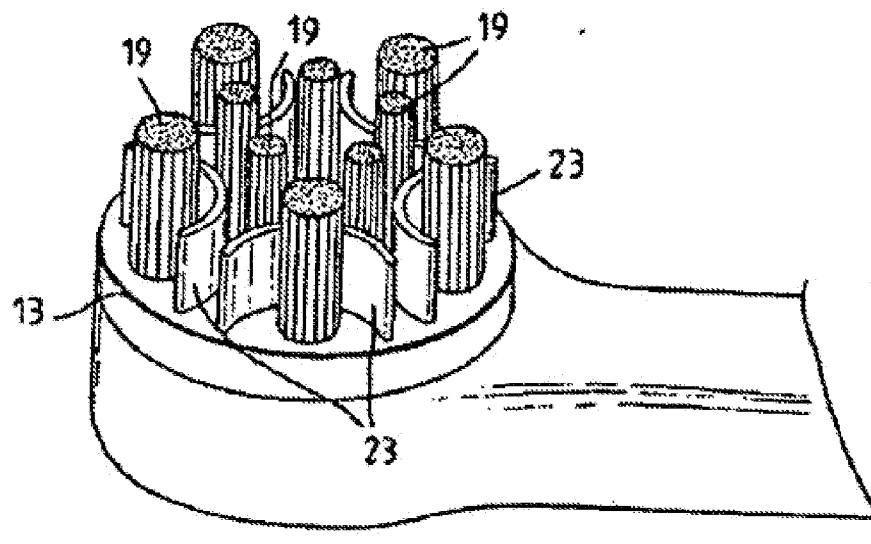
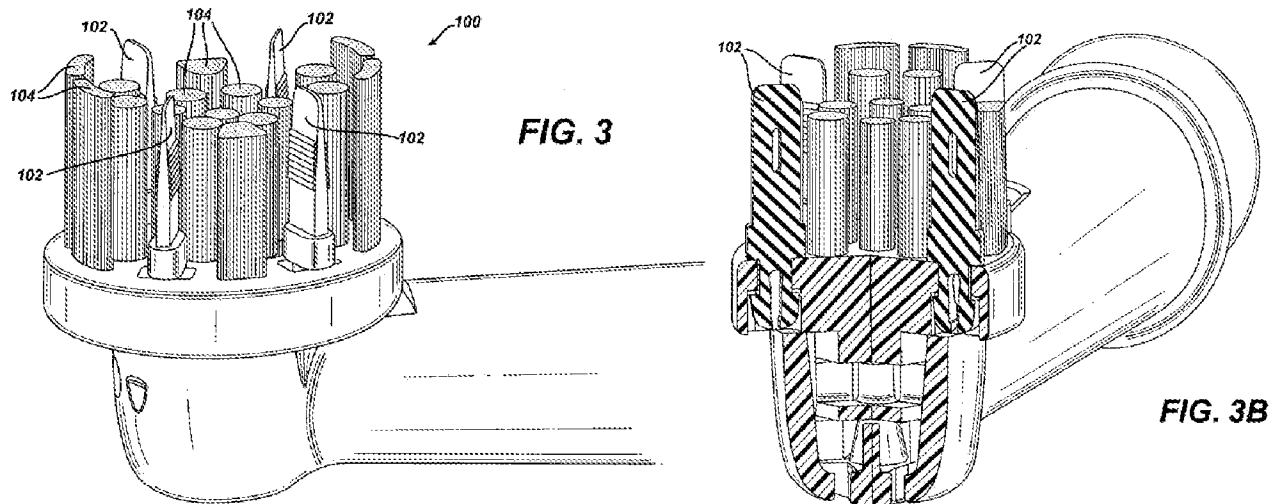


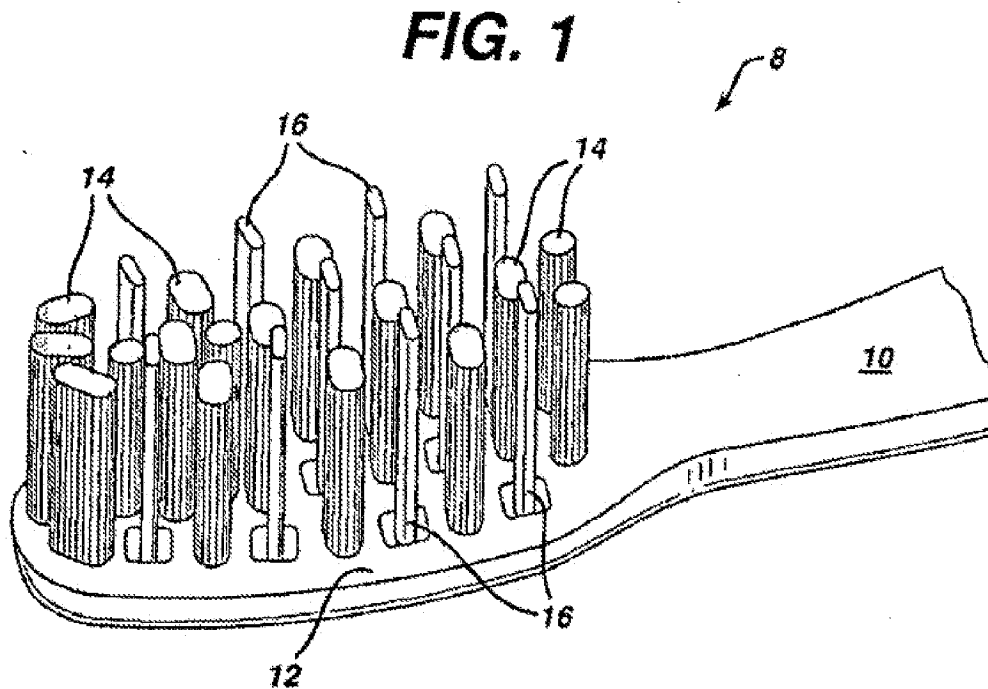
Fig. 5

Regarding the claimed “plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface,” the Final Action has interpreted membranes 23 of McDougall as being the claimed “plurality of elastomeric fins.” Such elastomeric fins are depicted in Figs. 3 and 3B of the instant application, reproduced below.



As recited in paragraph 34 of the instant specification, “the elastomeric elements are pivotably mounted.” This is in contrast to the tufts of bristles 104, which are depicted as “stationary” or as “fixed tufts.” See paragraphs 33 and 34 of the instant specification. Accordingly, one having ordinary skill in the art at the time of invention would recognize the claim language “plurality of elastomeric fins pivotably mounted in . . . the support member” requires that the elastomeric fins are not just able to flex relative to the support member, but also that the elastomeric fins are mounted in the support member such that the mounted section can pivot relative to the support member.

The Final Rejection then goes on to assert that a person having ordinary skill in the art would have modified McDougall to make the membranes 23 pivotally mounted, as Braun et al. teach, so that pivoted fins are able to fit between teeth and effectively clear interdental spaces. Braun however, teaches substantially different “elastomeric fins” than the membranes 23 disclosed by McDougall. The Braun fins are shown as reference numeral 16 in Fig. 1, reproduced below.



Unlike the membranes 23 of McDougall, the fins 16 of Braun are not disclosed as being “generally semi-circular in cross-section” and as partially surrounding a “bristle mounted adjacent the periphery of the brush holder.” McDougall, page 5, lines 24-27. Because of the “semi-circular” shape and arrangement of the membranes 23 of McDougall to partially surround a respective bristle, a person having ordinary skill in the art at the time of the invention would have had no expectation of success in attempting to make the membrane of McDougall pivot. The Office fails to point to any support for the proposition that the membrane of McDougall could be made to pivot or how that could be accomplished. Further, a person having ordinary skill in the art would not have expected to achieve the advantages of a pivoting fin disclosed by Braun by making the membrane 23 of McDougall pivot due to the differences in size and shape. And, the membranes 23 of McDougall were designed to clean and polish tooth surfaces, not to reach into and clear interdental spaces between teeth. Modifying the membranes 23 of

McDougall to make them pivot would defeat their intended purpose of polishing tooth surfaces.

Additionally, contrary to the Office's assertion, the fins 16 of Braun do not have a textured surface. The Office states that each fin inherently has a texture. However, according to the common meaning of "texture," i.e., a grainy, fibrous, woven or dimensional quality as opposed to a uniformly flat, smooth aspect, the fins of Braun clearly are not textured.

In view of the disclosure in the cited portions of McDougall and Braun discussed above, it is clear that McDougall does not disclose a "plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface" as required by claims 35 and 43. Further, no reasoning or evidence has been provided to indicate why a skilled artisan would be prompted to (or if it is even possible to) modify the fins of McDougall in light of the disclosure of Braun. Accordingly, the combination of McDougall and Braun cannot be maintained.

Neither Bigler nor Kressner alone or in combination with McDougall overcome this lack of disclosure.

Therefore, for at least the reasons above, it is believed Claims 35, 37-39, 41-43, 45-46 and 48-49 are in form for allowance and such indication is respectfully requested.

II. The rejection of claims 37, 44 and 50-53 as unpatentable under under 35 U.S.C. §103(a) over McDougall, Braun, Bigler, and Kressner, in view of Nishioka is erroneous.

This rejection is also improper for the reasons given above with respect to McDougall, Braun, Bigler and Kressner. Additionally, this rejection is improper, because one having ordinary skill in the art would not have modified the semi-circular membranes 23 of McDougall based on the disclosure of Nishioka.

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In particular, Nishioka discloses bristles having textured surfaces. Nishioka does not disclose membranes 23 or tooth cleaning elements 16, such as those taught by McDougall or Braun, having textured surfaces. As previously stated, McDougall is concerned with having the membranes 23 “polish surface of the teeth and remove stains during use” and having an arrangement where the membranes do not “become clogged up with toothpaste or debris removed from the teeth.” McDougall, page 6, lines 1-3 & 15-17. A person having ordinary skill in the art would not have modified the membranes 23 of McDougall to have a textured surface because a textured surface would undermine the polishing function and result in additional adherence of toothpaste and debris to the membranes.

Accordingly, one having ordinary skill in the art at the time of invention would not have made the asserted combination of McDougall, Bigler, Kressner, Braun and Nishioka as alleged by the Office. As such, the rejection is in error and should be withdrawn.

SUMMARY

Claims 35, 37-39, 41-46, and 48-53 have not been properly rejected in the Final Action for all of the reasons discussed above.

The rejections of claims 35, 43 and 50 and their respective dependent claims appear to be based on improper characterization of the scope and content of the prior art. As such, the rejections should all be reversed by the Honorable Board of Appeals and Interferences.

Respectfully submitted,
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CLAIMS APPENDIX

35. A power toothbrush comprising:

a handle,

a neck extending from the handle,

a motor within the handle, and

extending from the neck, a head including a support member, the support member including a lower portion constructed to be rotationally oscillated, relative to the neck, by the motor, and a top surface having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond, a major axis of the elongated shape being disposed generally parallel to a long axis of the handle, wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm²,

a plurality of tufts of bristles extending from the support member, and

a plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface.

37. The power toothbrush of claim 35 wherein the textured surface comprises ribs.

38. The power toothbrush of claim 35 wherein the tufts of bristles and elastomeric fins, in combination, have at least three different heights.

39. The power toothbrush of claim 35 wherein the tufts of bristles and elastomeric fins, in combination, and arranged so that their tips define a rounded contour.

41. The power toothbrush of claim 35 wherein the major axis of the top surface of the support member has a length of about 14 to 19 mm.

42. The power toothbrush of claim 35 wherein a minor axis of the top surface of the support member has a width of about 12 to 15 mm.

43. A head for a power toothbrush comprising:

a support member configured for releasable attachment to a power toothbrush, the support member including a lower portion constructed to be rotationally oscillated, relative to a neck of the toothbrush, and a top surface having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond, wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm²,

a plurality of tufts of bristles extending from the support member, and
a plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface.

44. The power toothbrush of claim 43 wherein the textured surface comprises ribs.

45. The power toothbrush of claim 43 wherein the tufts of bristles and elastomeric fins, in combination, have at least three different heights.

46. The power toothbrush of claim 43 wherein the tufts of bristles and elastomeric fins, in combination, and arranged so that their tips define a rounded contour.

48. The power toothbrush of claim 43 wherein a major axis of the top surface of the support member has a length of about 14 to 19 mm.

49. The power toothbrush of claim 43 wherein a minor axis of the top surface of the support member has a width of about 12 to 15 mm.

50. A head for a power toothbrush comprising:

a support member configured for releasable attachment to a power toothbrush, the support member including a lower portion constructed to be rotationally oscillated relative to a neck of the toothbrush, and a top surface having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond, wherein the top surface of the support member has an overall surface area of from about 170 to 200 mm²,

a plurality of tufts of bristles extending from the support member, and

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a plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface comprising ribs,

wherein the tufts of bristles and elastomeric fins, in combination, have at least three different heights.

51. The power toothbrush of claim 50 wherein the tufts of bristles and elastomeric fins in combination, and arranged so that their tips define a rounded contour.

52. The power toothbrush of claim 50 wherein a major axis of the top surface of the support member has a length of about 14 to 19 mm.

53. The power toothbrush of claim 52 wherein a minor axis of the top surface of the support member has a width of about 12 to 15 mm.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None